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Goddard Space Flight Center

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Inside Wallops

Shuttle Small Payloads Program Office Activities at Wallops

Mission 2000 related activities are indeed underway at Wallops in the Shuttle Small Payloads Program Office.

Space Experiment Module - SEM

The fifth flight of the Space Experiment Module Project (SEM 04) was launched on STS 95-Discovery, Oct. 29, 1998. The SEM canister, which carries up to 10 experiment modules, was mounted on the Spartan bridge in the Shuttle cargo bay.

The SEM 04 payload was returned to Wallops and the experiments were de-integrated during the week of Dec. 11, 1998.

SEM Technician, Barbara Justis returned "The Effects of Microgravity and Temperature on Mold Growth" experiment in SEM 04 to her alma mater, the West Richland Elementary School (WRES) in Noble, IL. The experiment, which was packed in the "Show and Tell" module, was opened with the help of WRES student scientists on Dec. 23, 1998.



Barbara Justis, Carrier Systems Branch (CSB) operates the overhead crane while Bill Sidell, Orbital (left) and Charlie Lipsett, CSB, guide the SEM-07 structure, with the ten modules already mounted, into the flight canister.

Another SEM 04 experiment, from the University of Maryland, College Park to demonstrate a new ratcheting device for an Extra Vehicular Activity (EVA) tool was featured on a Discovery channel special which aired the day after STS-95 launch.

STS 88-Endeavor, launched Dec. 4, 1998, carried SEM 07. SEM 07 underwent pre-flight integration at Wallops in August 1998 prior to being delivered to Kennedy Space Center. The SEM canister carried 11 experiments in the 10 modules. Eight of the modules contained experiments for NEWMAS (NASA Education Workshop for Math and Science Teachers) participants from Vermont, Connecticut, Massachusetts, Pennsylvania, New Jersey, Maine, South Carolina, Tennessee and New

York. The other three experiments were from the local area: Horntown Educational Learning Project (H.E.L.P.) K-3 Accomack County Schools TAG students in cooperation with the Virginia Institute of Marine Science, College of William and Mary; and a NASA Wallops sponsored experiment provided by students in the NASA SHARP Program and NASA Space Scholars Club. NEWMAS teachers and students as well as students from the local area will be on-site for SEM 07 de-integration at Wallops during the week of Feb. 1.

SEM 06 is scheduled for STS 101-Atlantis in August 1999 and will undergo pre-flight integration and testing at Wallops this spring. Chuck Brodell, CSB is the SEM-06 Mission Manager.

Get Away Special - GAS

The following four GAS payloads were on STS 95-Discovery: The Cosmic Dust Aggregation (CODAG), University of Bremen, Germany experiment was a simulation of the formulation of dust clouds in the early universe. Hearts in Space, Bellarmine College, Louisville, KY experiment was a full-scale artificial heart. The European Space Agency, Paris, France experiment was a thermal control experiment using heat pipe technology. The AIAA-National Section sponsored a DuVal High School, Lanham, MD experiment, "American Cockroach Experiment", which investigated the effects of space on the American cockroach.

Dave Ward and Joe Ruffing, Carrier Systems Branch (CSB) supported pre-flight integration in August 1998 and de-integration of three of the GAS payloads Nov. 30-Dec. 4, 1998, at the Kennedy Space Center (KSC).

The fourth payload was de-integrated, Dec. 15, at Swales Aerospace, Beltsville, MD. Dave Ward (CSB) provided technical support and Dave Wilcox represented the SSPP office.

One GAS payload flew on STS-88-Endeavour: The "Vortex", University of Michigan experiment was an investigation of liquid surface tension effects in microgravity. Dave Ward and Charlie Lipsett (CSB) supported pre-flight integration at KSC in August 1998. The payload will be de-integrated at Wallops during the week of Jan. 25.

For more information on the Shuttle Small Payloads Program visit the web site: <http://sspp.gsfc.nasa.gov>



A Black Brant motor, the third stage of a Black Brant XII sounding rocket, is transported to the launch pad at the Andoya Rocket Range in preparation for the Cleft Accelerated Plasma Experimental Rocket. (Andoya Rocket Range photo)

Wallops Conducting Rocket Missions in the North

NASA Wallops Flight Facility employees are in the northern regions of Earth poised to launch two sounding rocket experiments to provide scientists with valuable information on our planet's magnetosphere and the interaction of auroras with the atmosphere.

A team led by Dave Moltedo, Carrier Systems Branch (CSB) is at the Andoya Rocket Range, Norway, to launch a Black Brant XII sounding rocket as part of the Cleft Accelerated Plasma Experimental Rocket (CAPER). The launch window opened Jan. 11 and runs through Jan. 25.

The Earth's magnetic field forms an immense invisible shield shaped like a giant gas bag. On the day side, the solar wind compresses the bag to within 160,000 km (100,000 miles) or so of Earth's surface. On the night side, the wind drags it out to form a magnetotail more than a million miles into deep space.

The cusp, as this region is called, has been studied by a variety of spacecraft that have provided strong evidence the magnetotail is filled by electrified gas not from the solar wind, as scientists first thought, but from the Earth's own atmosphere.

Meanwhile, a Wallops team led by Bruce Scott, CSB, is preparing to launch four rockets as part of the Coupling of Dynamics and Aurora (CODA) experiment from Poker Flat Research Range, AK.

Measurements will be made by three near-simultaneous launches of Taurus-Orion sounding rockets that will release the chemical Trimethyl Aluminum. These launches will be closely followed by the launch of an instrumented Black Brant V. The launch window opened Jan. 12 and closes Jan. 29.

Brown Bag Lunch



"Hazardous Conditions Hazardous Drivers How to Survive"

**Trooper Ted Childress
Virginia State Police**

**Williamsburg Room (Bldg. E-2)
January 21, 1999
11:45 a.m. - 12:30 p.m.**

Sponsored by the Federal Women's Program. For further information call Pat Pruitt, x1145 or Brenda Harrie, x1480.

Many Happy Returns

from January 13, issue of FEDweek

Long-term investors in the C-fund (stock index) of the Federal Thrift Savings Plan hit the jackpot, again in 1998. Despite stumbling in mid-year, when the stock market dipped, the C-fund returned 28.44% in 1998. The year before (1997) the C-fund posted a 33.17% return; it was 22.85% in 1996 and 37.41% in 1995. That means people with money in the C-fund during that period have seen their money double, at least. During 1998, the F-fund (bond index) return was 8.7%. The G-fund (super-safe Treasury securities) return was 5.74%. All are good, considering that one of the primary goals is to outpace inflation. For 1998 the inflation rate was about 1.3%.

Open Season Reminder

The open season for the Thrift Savings Plan (TSP) ends Jan. 31. It will be May before you have another chance to sign up for the TSP or to reallocate where your future payroll contribution investments go. For forms or other information contact the Human Resources Office, x1151.

Upcoming Training

Strategic Business Management

Date: Feb. 7-12, 1999

Place: Wallops

This program is to enhance strategic and tactical management skills through the use of a computer simulated business. Students will explore the essence of a business by analyzing its strengths and weaknesses; developing and implementing a strategic plan; using market, financial and operations information to make complex trade-off decisions.

The course is for Management Education Program (MEP), Managing the Influence Process (MIP), Senior Executive Service Candidate Development Program or Senior Executive Service Leadership program graduates. To sign up, contact Andrea Ables on x66-4919.

GSFC 40th Anniversary Logo

A logo to celebrate the 40th Anniversary of Goddard Space Flight Center (below) was recently unveiled.

The logo will be featured on materials and products developed for Goddard's 40th Anniversary. A week-long celebration will begin Sunday, May 2 with a special Community Day event commemorating four decades of scientific and engineering excellence at Goddard.



Black and white, 2-color and full-color versions of the logo in .jpg format are available on the Goddard internal web page: <http://internal.gsfc.nasa.gov> Employees can use it on official Goddard publications.



Super Bowl Sunday January 31, 1999 Bldg. F3

Chili Cook-Off

1st, 2nd & 3rd prizes will be awarded

To register for the cook-off, call or e-mail: Bev Hall, 824-1714,
Beverly.J.Hall.1@gsfc.nasa.gov
or Jose Gutierrez, 824-3446,
mac@wcda.wff.nasa.gov



Black History Club Annual Dinner February 13, 1999

**5 p.m. to midnight - Bldg. D-10
\$20 per person (donation)**

Purchase tickets by Feb. 1 from:
Karen Downing, x2163
Sandra Banks, x2526
Freda Johnson, x1466

Support Requested for Engineers Week

National Engineers Week is Feb. 21 to 27. The Public Affairs Office needs engineers, technicians and scientists who will speak to students at local schools about careers in science, technology and math.

A short information session is being planned for 9 a.m., Feb. 9, in the first floor conference room, Bldg. F-6. The session is to help potential speakers prepare and to demonstrate simple hands-on activities that can be used.

Exhibits, videos and other materials are available through the Visitor Center. National Engineers Week information packages are available in the Public Affairs Office.

For additional information or to volunteer call Tony Goodyear, x1681 or Betty Flowers, x1584.

Exhibit Support Needed

Wallops will have an exhibit at the Wicomico County Education Fair, Jan. 23. Anyone that would like to help support this event may call Tony Goodyear, x1681.

Tittle's Name That Tune January 20, 1999 Featuring Our Own BOB TITTLE

**Bldg. F3
6:30 p.m. 'till**

This is great fun! Three people (or less) make up a team. Grab your friends and come on over! A great way to meet people! So even if you don't think you know the tunes, come sit with a team and socialize.

CFC Surpasses Goal

by Freda Johnson, CFC Chairperson

Thanks to the generosity of lower Eastern Shore federal and contractor employees, the Combined Federal Campaign (CFC) goal of \$40,000 was surpassed.

This year's theme, "Create Hope and Opportunity — Reach Out for Love" became a reality. A special thanks goes to the Wallops employees for their contributions and to the CFC keyworkers for their time and effort in making the campaign a success.

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